

Data Evaluation Documentation and Findings

Parcel:	G	Unit:	ES116 (S0113)
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Section I: Reason For Evaluation (Summary of Flagged Data):										
1) K-S Test: Pass/Fail?									Pass <input type="checkbox"/> Fail <input checked="" type="checkbox"/>	
Units Evaluation Flags										
Ac-228	Bi-212	Bi-214	Cs-137	K-40	Pb-212	Pb-214	Ra-226	Total		
			2					2		
Days Evaluation Flags										
Ac-228	Bi-212	Bi-214	Cs-137	K-40	Pb-212	Pb-214	Ra-226	Total	Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	
								0		
2) Logic Tests: Pass/Fail?										
Logic Test 1: Were FSS samples collected on the same day? Observation: FSS Samples were collected on 07/07/2008.										Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Logic Test 2: Were FSS samples collected on the same day or after confirmatory/biased samples were collected? Observation: No confirmatory/bias samples were collected.										Yes <input type="checkbox"/> No <input type="checkbox"/>
Logic Test 3: Were samples collected before they were counted? Observation:									Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Logic Test 4: Were all FSS samples analyzed within 2 working days? Observation: FSS samples were analyzed onsite on 07/02/2008 and 07/03/2008.									Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Logic Test 5: Were samples counted within 2 weeks of sample collection? Observation:									Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Logic Test 6: Is the mass of the sample reported by the onsite lab the same as the mass reported by the offsite lab? Observation: Offsite Lab mass was not reported.									Yes <input type="checkbox"/> No <input type="checkbox"/>	
3) Time Series Plots: Pass/Fail?									Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>	
Bi-214	Anomalies or unusual trends identified?								No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	
	Notes:									
Ac-228	Anomalies or unusual trends identified?								No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	
	Notes:									
K-40	Anomalies or unusual trends identified?								No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	
	Notes:									
4) Historically Significant Site Location: Yes/No?									No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	
Was a known radiation cleanup performed at (or near) this site? If yes, where?									No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	
Is the sewer line connected to or downstream from a radiologically-impacted building? If yes, which building?									No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	
5) Allegation: Yes/No?									No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>	
If yes, description: Suspect worker involved with data collection.										

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Section II: Evaluations Performed				
1) Other Statistics Results			Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>
Box Plots	Anomalies or unusual trends identified?		No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>
	Notes:			
Normal Quantile Plots	Anomalies or unusual trends identified?		No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>
	Notes:			
2) Additional Database Review Performed?			No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>
Review objectives: Investigate K-S-Test Flags				
Observations: Cs-137 results for S0113 were generally higher than the average Parcel G results, but otherwise the data were within the expected range and were low compared to the removal action objective; The K-S flags do not suggest potential data falsification nor do they raise concerns regarding potential Cs-137 contamination.				
3) Adjacent Survey/Trench Unit Review			Pass <input checked="" type="checkbox"/>	Fail <input type="checkbox"/>
List of Adjacent Units: Review origin TUs (TU105 and TU113)				
Was a review of adjacent unit's data performed? Yes				
Anomalies or unusual trends identified?			No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>
Notes: The results from TU105 and TU113 are consistent with the results reported for ES116. The slightly lower variability associated with ES116 distributions could result from blending of soils from the two trenches when assembling this fill unit. No evidence of potential data falsification was identified.				
4) SUPR or FSSR Review Performed? – March 2011 Final SUPR				
Summary of Excavation / Sampling Activities	The gamma scan of ES116 did not identify any measurements above the investigation level. Therefore, no additional samples were collected. Eighteen (18) systematic samples were collected from ES116. Sample numbers 04 and 10 were randomly selected to be analyzed for Sr-90. None of the sample results identified activity above the release criteria for any radionuclide of concern (ROC).			
Gamma Static Data Observations:	Not provided in the SUPR.			
Gamma Scan Data Observations:	Total gamma scan measurements averaged 1,719 cpm with a maximum of 2,218 cpm and a standard deviation of 114 cpm. No measurements exceeded the investigation level.			
List of Excavation / Overburden Units Used for Backfill	ES115 and ES116 were used to backfill TU113			
Onsite / Offsite Lab Data Comparison:	Samples 11 and 16 were sent for offsite analysis; the data are consistent.			
Scan / Static Surveyor Name:	J. Cunningham			
Sampler / Surveyor Name:	Not provided in the SUPR.			
5) RACR or CSR Review Performed? – December 2011 Final Parcel G RACR				
List of Excavation / Overburden Units Created from Excavation:	ES116: TU105 (64%) and TU113 (36%) RACR Table 3-4 reports that ES116 was subject to 18 samples and no ROCs or elevated results were identified; which is consistent with the SUPR.			

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Section III: Conclusions and Recommendations			
Summary of Findings: Based on the findings of this evaluation, no evidence of potential data falsification was found.			
<input checked="" type="checkbox"/> No Further Action	<input type="checkbox"/> Reanalyze Archived Samples	<input type="checkbox"/> Confirmation Sampling	<input type="checkbox"/> Physical Inspection of Archived Samples
<input type="checkbox"/> Other Recommendations:			
Additional Information Required: None.			

Completed by: Scott Walnicki

Date: 08/04/2017

Reviewed by: Alejandro Lopez, CHP

Date: 09/07/2017

Approved by: Matt Liscio

Date: 09/08/2017

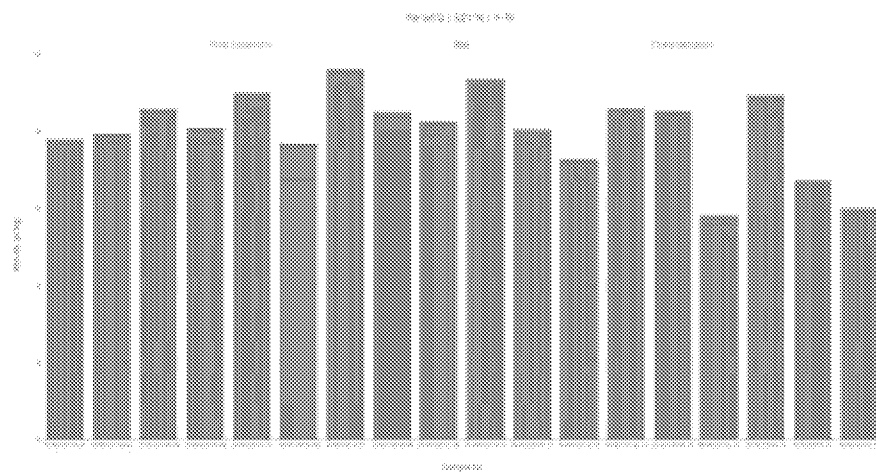
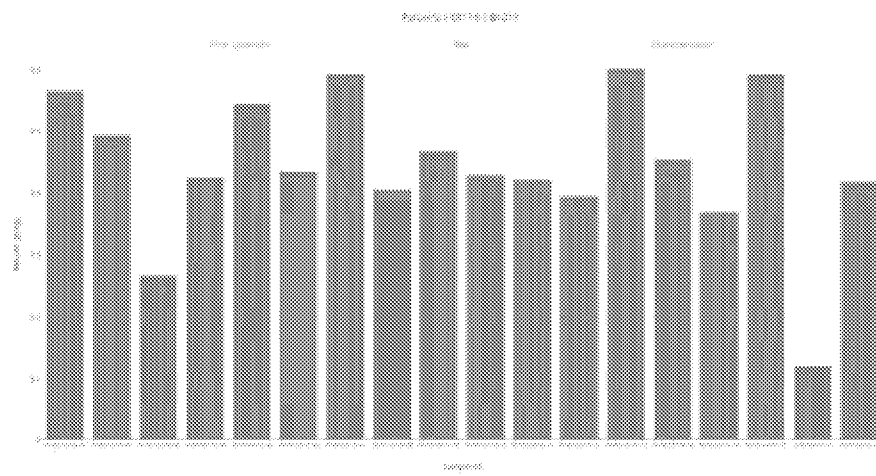
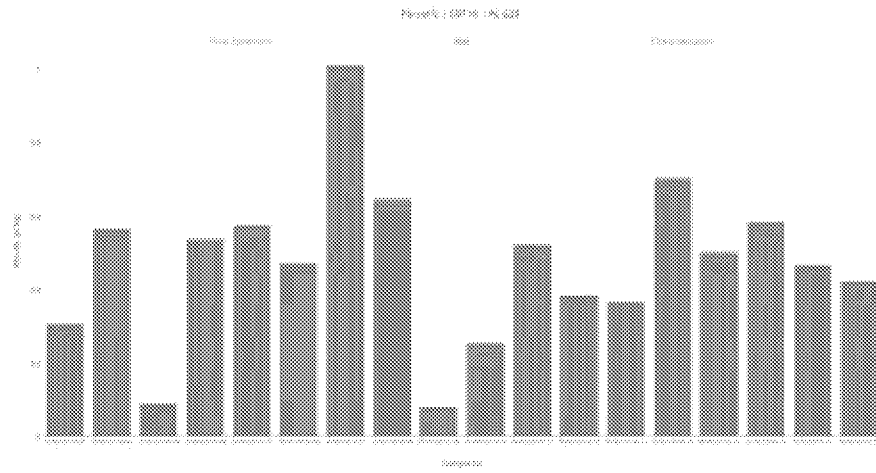
Acronyms:

Ac	Actinium (e.g., Ac-228)
B	Former Building (or other site) Surface Soil Survey Unit
Bi	Bismuth (e.g., Bi-214)
Cs	Cesium (e.g., Cs-137)
CSR	Construction Summary Report
COC	Chain of Custody
ESU	Excavation Survey Unit
FSS	Final Status Survey
FSSR	Final Status Survey Report
K	Potassium (e.g., K-40)
OB	Overburden Unit
Pb	Lead (e.g., Pb-212)
pCi/g	picocuries per gram
Ra	Radium (e.g., Ra-226)
RACR	Remedial Action Completion Report
ROC	radionuclide of concern
S	Sewer or Storm Drain Removal Survey Unit
SUPR	Survey Unit Progress Report
TU	Trench Unit

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Time-Series Plots

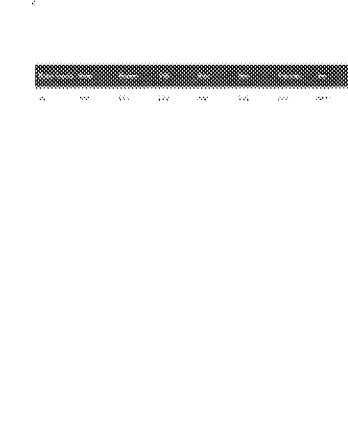
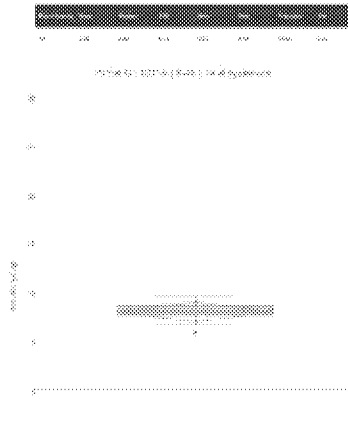
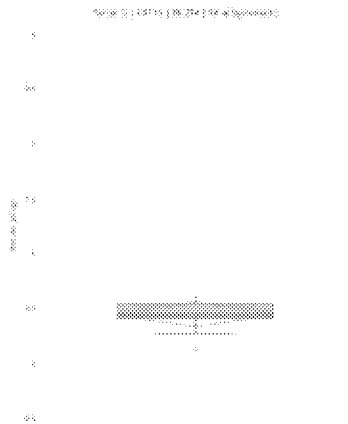
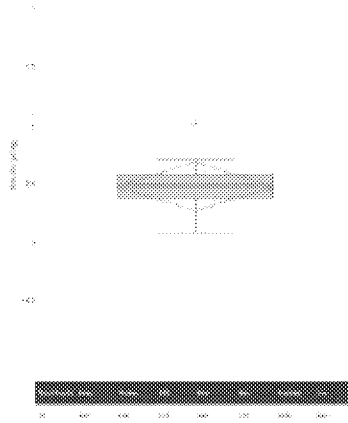


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Box Plots

Parcel ID: 10146 | 10146 | 10146 | 10146 | 10146

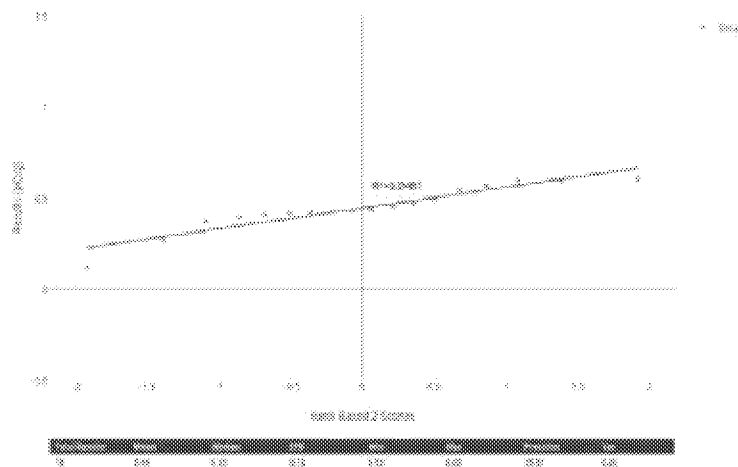


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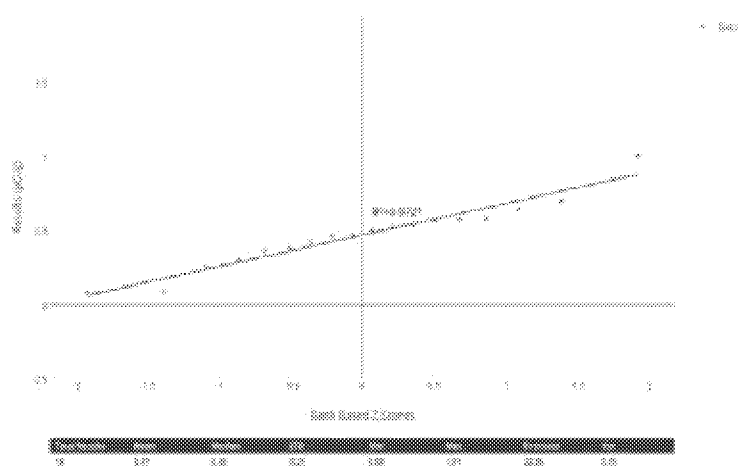
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Normal Quantile Plots

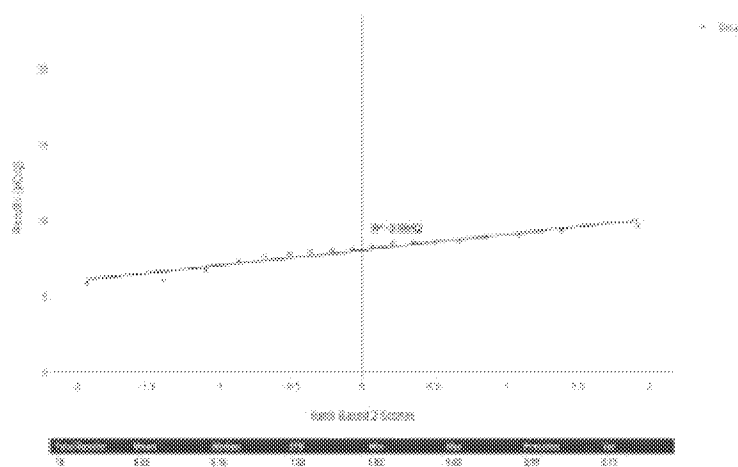
Parcel G | CS116 | B1-214 | First Systematic



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